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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/661,637	09/13/2000	Abraham R. Matthews	FORT-000100	7670
64128 7590 02/08/2007 HAMILTON DESANCTIS & CHA Michael A. DeSanctis 756 HARRISON ST. DENVER, CO 80206			EXAMINER SHIN, KYUNG H	
			ART UNIT 2143	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/08/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

09/661,637

Applicant(s)

MATTHEWS, ABRAHAM R.

Examiner

Kyung H. Shin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 September 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 8/22/06.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3-6-06 has been entered.
2. This action is responding to RCE amended 3-6-2006. **Claims 1 - 18** are pending. **Claims 1, 6, 11** have been amended. Independent claims are **1, 6, 11**.

### ***Response to Arguments***

3. Applicant's arguments filed 3/6/06 have been fully considered but they are not persuasive.

3.1 Applicant argues that the referenced prior art does not disclose, "*... the ring configuration is between processors in the first system and is not linking various networked systems ...*". (see Remarks Page 7, Lines 13-14)

By definition, a system is, "... A group of related components that interact to perform a task. ...". (<http://www.answers.com/topic/system>) The first processing system is merely a collection of processing systems interconnected

into a ring network (i.e. equivalent to specification) configuration with a single task. The task is to perform security services for an ISP. There is no mention of any type of inter-processor connections between each of the processors for a first or second processing system. There is a mention of the connections between processors within a ring. The term "ring network" is mentioned at ( ), is a secure connection between each processor.

Each system has a processor and other components for the system (i.e. systems; CPU, memory, I/O interfaces (i.e. including network interfaces); blade type systems). Each system is connected to a network interface for network communications. The communications network is in the configuration of a ring.

The Specification states numerous times, " ... ring network ... " or network ring. (see Specification Page 8, Lines 27; Page 17, Lines 8; Page 17, Line 9) This indicates that the ring connections are network based.

- 3.2 Applicant argues that the referenced prior art does not disclose, " ... *provide application layer services ...* " (see Remarks Page 7, Line 9); " ... *services provided are application layer services such as routing ...* ". (see Remarks Page 7, Lines 17-18)

The term "*application layer*" is not disclosed within the Specification or the set of original claims. The term "*application*" is not mentioned in the original claims.

The term "*application*" is mentioned in the specification on Page 12, Line 17, as a application programming interface, and on Page 15, Line 9, as providing IP

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services. There is no mention of the term "application layer". This is new matter and as such will not be addressed.

3.3 Applicant is reminded that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

The rejection to each independent and dependent claim includes a citation from the referenced prior art that discloses the basis for the rejection. Each obviousness combination clearly indicates the claim limitation the combined reference prior art teaches. In addition, a cited passage from the referenced prior art clearly indicates the motivation for the obviousness combination. Each obviousness combination's disclosure is equivalent to the Applicant's claimed invention.

3.4 The examiner has considered the applicant's remarks concerning a flexible system that allows a service provider to easily provide internet services, virtual private network services, firewall services or other security type services to a plurality of customers based on each customer individual changing needs.

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Applicant's arguments have thus been fully analyzed and considered but they are not persuasive.

After an additional analysis of the applicant's invention, remarks, and a search of the available prior art, it was determined that the current set of prior art consisting of **Alles (6,466,976)**, **deBoer (6,658,013)**, **Rao (6,674,756)** and **Garner (6,243,580)** discloses the applicant's invention including disclosures in Remarks dated March 6, 2006.

### ***Double Patenting***

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed **terminal disclaimer** in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130 (b).

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Effective January 1, 1994, a registered attorney or agent of record may sign a **terminal disclaimer**. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims **1 - 18** are provisionally rejected under the judicially created doctrine of double patenting over claims **1 - 19** of copending Application No. **09/952,520** (PGPUB: **20020152373**). This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows:

**09/952,520**

Application: 09/661637

PGPUB: **2002/0152373**

Exemplary claim 1

Exemplary Claims **1, 2, 5**

However, PGPUB: **2002/0152373** does not explicitly disclose a secure connection, even though it would have been obvious to one of ordinary skill in the networking art to have utilized a secure connection. Since PGPUB: **2002/0152373** does state utilizing tunneling for securing traffic over a network as well as encrypting and decrypting packets from one node to another node.

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***Claim Rejection - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 1, 6, 11, 13 - 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Alles et al.** (U.S. Patent No. **6,466,976**) in view of **deBoer et al.** (U.S. Patent No. **6,658,013**) and further in view of **Rao** (U.S. Patent No. **6,674,756**).

**Regarding Claims 1, 6, 11**, Alles discloses multiple processor utilizing a method and system of delivering security services. (see Alles col. 3, lines 24-28; col. 2, lines 37-43) But, Alles does not disclose a ring configuration. However, deBoer discloses:

a) connecting a plurality of processors in a ring configuration within a first processing system; (see deBoer col. 4, lines 22-37)

Alles does not disclose a secure connection between two ring configurations.

However, deBoer discloses:

b) establishing a secure connection between a second processing system and the first processing system across an internet protocol (IP) connection to form a tunnel; (see deBoer col. 4, lines 22-37)

Alles discloses a method and system of delivering security services. (see Alles col. 2, lines 37-43) Alles discloses services processing at OSI layers at the



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network layer and higher (i.e. application layer). (see Alles col. 4, lines 50-53)

Alles does not specifically disclose processing at the application layer.

Additionally, Alles does not disclose a ring configuration for processors (a first processing system) or two ring configurations (a first and second processing system) connected by a tunnel (i.e. network path). However, deBoer does disclose a ring configuration for connected processors, two ring configurations connected by a tunnel (i.e. network path). And, Rao discloses services processing specifically at the application layer for a customer:

- c) routing messages from the second processing system via the first processing system (see deBoer col. 4, lines 22-37: processing rings) providing [both router services and host] application layer (see Rao col. 21, lines 14-18: processing at the application layer) services for a customer [using] using at least one processor selected from the plurality of processors in the first processing system's ring configuration and using the second processing system. (see Alles col. 2, lines 27-39; col. 3, lines 24-26; col. 2, lines 44-48). But, deBoer does not disclose service provider services (i.e. routing and hosting). However, Alles does disclose service provider services such as routing and hosting.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alles to utilize a two ring configuration connected by a tunnel (network path) in the processing of subscriber services as taught by deBoer, and to utilize application layer processing for the delivery of services as taught by Rao. One of ordinary skill in the art would be motivated to employ deBoer and Rao

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in order to provide expanded and updated features and services to subscribers (see deBoer col. 4, lines 12-17: “ ... *provide a method and apparatus for enabling the survivability of interring traffic which is faster, more bandwidth efficient and better integrated ...* ”), and (see Rao col. 2, lines 6-12: “ ... *fault-tolerant and efficient services that will accommodate the increase in the number and the variety of network traffic ... a private, secure environment for multiple sharing subscribers without the addition of a separate POP* ”).

**Regarding Claim 13**, Alles discloses the usage of routing in communications. (see Alles col. 2, lines 21-25; col. 6, lines 52-57) Alles does not disclose the usage of virtual routers in communications. However, Rao discloses the method and system of claim 2, 7, 11, wherein for each of a plurality of customers, a virtual router is formed in the first processing system and is operably connected to a virtual router formed in the second system. (see Rao col. 2, lines 20-27)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alles to utilize virtual router techniques for communications as taught by Rao. One of ordinary skill in the art would be motivated to employ Rao in order to provide strengthened services to accommodate increases in network traffic within a secure subscriber environment. (see Rao col. 2, lines 6-12)

**Regarding Claim 14**, Alles discloses the usage of routing in communications. Alles does not disclose the usage of virtual routers in communications. However, Rao

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discloses the method and system of claim 2, 7, 11, wherein for each of a plurality of customers, a virtual private network is formed using a virtual router formed in the first processing system and operably connected to a virtual router formed in the second system. (see Rao col. 2, lines 20-27; col. 2, lines 35-37: virtual router, virtual private network)

**Regarding Claim 15**, Alles disclose a plurality of processors with rotating connections. Alles does not disclose a ring configuration. However, deBoer discloses the method and system of claim 2, 7, 11, wherein the connecting a plurality of processors in a ring configuration. (see deBoer col. 4, lines 22-37)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alles to utilize a ring configuration for the connected plurality of processor as taught by deBoer. One of ordinary skill in the art would be motivated to employ deBoer in order to provide expanded and updated features and services to subscribers. (see deBoer col. 4, lines 12-17)

**Regarding Claim 16**, Alles discloses the system of claim 11, further comprising: a services management system that provides changeable provisioning of processor capacity among a plurality of customers. (see Alles col. 4, lines 3-6)

**Regarding Claim 17**, Alles discloses services processing at the OSI layers higher than the network layer (i.e. application layer). (see Alles col. 4, lines 50-53) Alles discloses

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firewall protection (see Alles col. 7, lines 52-61) for each of a plurality of customers.

Alles does not specifically disclose processing of services at the application layer.

However, Rao discloses the system of claim 11, further comprising: a services management system that provides processing at the application layer (i.e. such as routing ... indicated by Applicant) processing). (see Rao col. 21, lines 14-18)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alles to utilize application layer processing for services as taught by Rao. One of ordinary skill in the art would be motivated to employ Rao in order to provide strengthened services to accommodate increases in network traffic within a secure subscriber environment. (see Rao col. 2, lines 6-12)

**Regarding Claim 18**, Alles discloses the system of claim 11, further comprising: a services management system that provides provisioning of processor capacity among a plurality of customers, wherein each customer's resources are isolated from those of all the other customers. (see Alles col. 3, lines 43-47; col. 3, lines 58-60)

8. **Claims 2 - 5, 7 - 10, 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Alles-DeBoer-Rao** and further in view of **Garner** (U.S. Patent No. **6,243,580**).

**Regarding Claims 2, 7, 12**, Alles discloses one or more processing processor. (see Alles col. 3, lines 24-28: initial processing by processing group (i.e. type)) Alles does not disclose one or more control processors or one or more access processors.

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However, Garner discloses the method and system of claim 1, 6, 11, wherein, to support a communications network, the plurality of processors groups or types includes one or more control processors and one or more access processors. (see Garner col. 5, lines 27-30; col. 58, lines 36-40: control and access processors)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alles to utilize one or more control processors and access processors in the processing of services as taught by Garner. One of ordinary skill in the art would be motivated to employ Garner in order to provide expanded and updated features and services to subscribers. (see Garner col. 3, lines 63-67: " ... *System Engineering ... subsystems, equipment and software which is needed to expand capacity to meet increases in traffic demands and to provide new features and services which become marketable to subscribers ...* ")

**Regarding Claims 3, 8,** Alles discloses the usage of routing in communications. (see Alles col. 2, lines 21-25; col. 6, lines 52-57) Alles does not disclose the usage of virtual routers in communications. However, Rao discloses the method and system of claim 2, 7, 11, wherein for each of a plurality of customers, a virtual router is formed in the first processing system and is operably connected to a virtual router formed in the second system. (see Rao col. 2, lines 20-27: virtual router)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alles to utilize virtual router techniques for communications as taught by Rao. One of ordinary skill in the art would be motivated to

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employ Rao in order to provide strengthened services to accommodate increases in network traffic within a secure subscriber environment. (see Rao col. 2, lines 6-12)

**Regarding Claims 4, 9**, Alles discloses the usage of routing in communications. (see Alles col. 2, lines 21-25; col. 6, lines 52-57) Alles does not disclose the usage of virtual routers in communications. However, Rao discloses the method and system of claim 2, 7, 11, wherein for each of a plurality of customers, a virtual private network is formed using a virtual router formed in the first processing system and operably connected to a virtual router formed in the second system. (see Rao col. 2, lines 20-27; col. 2, lines 35-37; virtual router, virtual private network)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alles to utilize virtual router techniques for communications as taught by Rao. One of ordinary skill in the art would be motivated to employ Rao in order to provide strengthened services to accommodate increases in network traffic within a secure subscriber environment. (see Rao col. 2, lines 6-12)

**Regarding Claims 5, 10**, Alles discloses the method and system of claim 2, 7, 11, wherein the connecting a plurality of processors in the ring configuration includes forming dual counter rotating ring connections, each connecting to each of the plurality of processors. (see Alles col. 3, lines 30-33)

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**Conclusion**

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyung H Shin whose telephone number is (571) 272-3920. The examiner can normally be reached on 9 am - 7 pm.

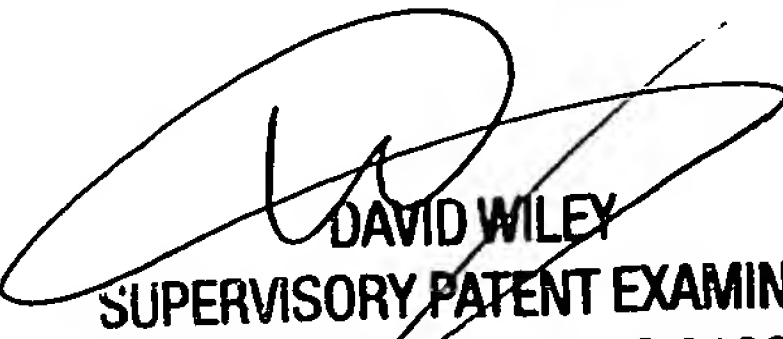
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

K H S

Kyung H Shin  
Patent Examiner  
Art Unit 2143

KHS  
February 2, 2007

  
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